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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,710	11/18/2003	Osamu Nonaka	OOCL-146 (6SI-03S1436)	5416

26479 7590 10/18/2007

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EXAMINER	
HSU, AMY R	

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
10/18/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/715,710	NONAKA, OSAMU	
	Examiner	Art Unit	
	Amy Hsu	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-14,21-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

1. Applicant's arguments, filed July 16, 2007, with respect to the rejection(s) of claim(s) 1,2,5-14,21-20 under 35 U.S.C §102(e) and 35 U.S.C §103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the amended claims.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claim 1,2,5,8 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki (US 2003/0081137).

Regarding Claim 1, Yamazaki teaches a focusing apparatus comprising: a distance-measuring device which measures distances of a plurality of points in a photographing field (*paragraph 77 Lines 1-5)* based on a principle of triangular distance measurement (*paragraph 4 Lines 8-9)* to detect a subject which is the closest to the focusing apparatus, of subjects in the photographing field (*paragraph 78 Lines 1-4 and Fig. 10)*; a photographing lens; a driving mechanism which drives the photographing lens along an optical axis (*Fig. 3 shows the lens and control cpu, paragraph 9 describes the lens is driven)*; an image pickup device which receives a subject light flux incident via the photographing lens to output a subject image signal (*paragraph 9 Lines 4-6)*; and a CPU which controls the driving mechanism to drive the photographing lens along the optical axis (*Fig. 3 reference number 40 is the cpu and paragraph 80 teaches the focus lens is moved)*, while detecting a contrast of the subject image signal in a plurality of image pickup areas corresponding to the plurality of points (*paragraph 80 teaches contrast is determined at a plurality of points)* and which adjusts a focal position of the photographing lens in a position which has a highest contrast of the subject image signal in an image pickup area corresponding to a point indicating a shortest distance of an output of the distance-measuring device in the plurality of points (*Fig. 4 shows that distance measurement is performed in S112 and the closest point is determined as stated above, in order to determine the target area where contrast AF is performed in S124, then contrast AF is performed in the target area in S128. Paragraph 80 and 82 teaches the contrast AF system drives the lens calculating*

contrast at different points and determines whether a peak contrast, or a highest contrast, has been found. Therefore it adjusts the lens until a point with peak contrast).

Regarding Claim 2, Yamazaki teaches the apparatus according to claim 1, wherein the distance-measuring device detects a brightness in the plurality of points and the image pickup device sets an integration time in the plurality of image pickup areas based on the detected brightness (*Paragraph 53 teaches the distance measuring device, reference number 14, determines brightness of the object and adjusts exposure, or integration time. Paragraph 77 teaches the distance measuring device is applied to multi points).*

Regarding Claim 5, Yamazaki teaches a focusing apparatus comprising: an image pickup device including a plurality of image pickup areas (*Fig. 3 and Fig. 10)*; a focusing lens (*Fig. 3. reference number 32)* including an optical path via which a subject light flux is incident upon the image pickup device (*Paragraph 9)*; a focusing section which determines a plurality of focusing lens positions (*Throughout Fig. 4 a plurality of focusing lens positions are determined)* from a relation between the position of the focusing lens and a contrast of a subject image signal obtained on the image pickup device via the focusing lens (*paragraph 80 teaches the relation between the focusing lens and contrast is determined)*; a distance-measuring section which obtains the position of a subject in a photographing field and a distance to the subject (*as addressed with Claim 1)*; and a calculation control section which obtains a plurality of

combinations of the focusing lens position and the image pickup area for use at the time of the focusing by the position and distance of the subject obtained by the distance-measuring section (Fig. 3 reference number 40 is the control section and *Fig. 4 shows the range within the image pickup area and the lens position are variable and determined by the distance measuring sensor)*; and a control section which stops the focusing lens in the plurality of focusing lens positions in accordance with the plurality of combinations (*this is shown in Fig. 4 for example in S136 when the focus position is found by contrast AF, moving the lens until peak contrast, then the lens is fixed at the focus position)* and which obtains the contrast of the subject image signal outputted from the image pickup area of the combination corresponding to each focusing lens position (*paragraph 80 teaches contrast is determined for the area within the AF search range, the range includes different focusing lens positions starting from a search start position)* and the contrast of the subject image signal outputted from the image pickup device in all the areas of the image pickup device to determine the position of the focusing lens (*Paragraph 80 and 82. The result with a peak contrast is found which one skilled in the art realizes corresponds with optimal focus).*

Regarding Claim 8, Yamazaki teaches a focusing apparatus comprising: a photographing lens; an image pickup section which detects a subject image incident via the photographing lens (*as addressed with Claim 1)*, and detects contrast information regarding an entire area of a photographing field and part of the entire area of the photographing field (*Fig. 4 teaches contrast AF is determined for an entire field,*

or the search range, as taught in paragraph 80, and a part of the entire area, in S124); a distance-measuring section which performs measurement to determine a focal position with respect to a plurality of points in a photographing field (*as addressed with Claim 1)*; and a determining section which moves the photographing lens to a plurality of focal positions corresponding to a plurality of distance measurement results of the distance-measuring section (*Fig. 4, S140 and 126 the lens is moved to different focal positions corresponding to results from the distance measurement)* and which determines an area to execute a final mountain climbing AF based on the contrast information detected by the image pickup section and the focal position determined by the distance measuring section (*paragraph 81 teaches a high frequency component within the target area is extracted and a peak is found as taught in paragraph 82 based on the AF contrast information and distance measurement information as brought together in Fig. 4).*

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 7, 9-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki (US 2003/0081137).

Regarding Claim 7, Yamazaki teaches the apparatus according to claim 5, wherein the distance-measuring section includes a divided sensor array (*paragraph 4, CCD)* to detect brightness (*paragraph 53),* which adjusts exposure, or accumulation time. This is done at the time of determining a range to perform contrast AF (*paragraph 12).* However, Yamazaki does not teach brightness detected at the time of obtaining change in contrast. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to adjust exposure by brightness detected at the time of obtaining change in contrast in order to capture the image with optimal exposure and light amount to optimize contrast.

Regarding Claim 9, Yamazaki teaches a camera including a focusing apparatus, comprising: an irradiation device which selectively switches irradiation and non-irradiation of a subject with an auxiliary light for distance measurement (*paragraph 4 describes distance measurement by projecting light onto an object and receive the reflection)*; a photographing lens; a driving circuit which drives the photographing lens along an optical axis direction; an image pickup device which receives a light flux incident from the subject via the photographing lens to output a subject image signal (*as addressed with Claim 1)*; an image processing circuit which processes the subject image signal outputted from the image pickup device (*Fig. 3 reference number 40)*; a distance-measuring device which includes a pair of optical systems (*Fig. 3 reference number 12)* and a pair of sensors for distance measurement (*Fig. 3 reference number*

14) to detect a plurality of subject images incident via the pair of optical systems and which outputs information associated with a subject distance based on the plurality of subject images detected by the sensors for distance measurement (*paragraph 77)* and which detects the plurality of subject images in a case where the subject has a low brightness (*paragraph 4 teaches performing external light AF as addressed above, projecting light to an object to measure distance, when there is low brightness, see end of paragraph 4)*; and a CPU which selectively executes a first auto-focus operation of detecting a contrast state based on the subject image signal processed by the image processing circuit to adjust a focus of the photographing lens (*Fig. 4 reference number S128 is contrast AF)*, a second auto-focus operation of performing a distance-measuring operation by the distance-measuring device in a non-irradiation state of the auxiliary light for distance measurement to adjust the focus of the photographing lens in accordance with a result of the distance-measuring operation (*distance measuring auto focus is described in paragraph 53, while the movie images are displayed, the sensor is actively periodically acquired distance values, therefore it is in a non-irradiation state)*, and a third auto-focus operation of performing the distance-measuring operation by the distance-measuring device in an irradiation state of the auxiliary light for distance measurement to adjust the focus of the photographing lens in accordance with the result of the distance-measuring operation (*paragraph 4 describes distance measurement in an irradiation state from an auxiliary light)*, wherein the CPU first executes the second auto-focus operation, and then executes the first auto-focus operation (*Fig. 4 shows the distance measurement autofocus is executed*

then the contrast AF is executed) , when the main subject is separated from the camera by a distance shorter than a predetermined distance after the second auto-focus operation. Yamazaki does not teach the third auto focus or distance measurement in irradiated state is done after the first and second but teaches brightness is detected as taught in paragraph 12 and it is also taught that external light AF is performed for low brightness. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to do a third auto focus described after the first and second when low brightness is detected because optimal focus is difficult to obtain when there is low brightness, so flashing light from an auxiliary source temporary provides brightness in order to obtain optimal focus.

Regarding Claim 10, Yamazaki teaches the camera according to claim 9, wherein the CPU judges whether or not the subject indicates the low brightness and executes any of the first, second, and third auto-focus operations in accordance with the result of the judgment. Paragraph 12 teaches brightness is detected. Yamazaki also teaches that for low brightness, external light AF should be performed. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to allow the cpu to execute any of the auto focus operations for the same rationale as above.

Regarding Claim 11, Yamazaki teaches the camera according to claim 10, wherein the CPU executes the second auto-focus operation and judges that the subject indicates the low brightness, when the output of the sensors for distance measurement indicate a level not more than a predetermined level as a result of the second auto-focus operation. Yamazaki teaches in paragraph 53 the brightness is measured by the distance measuring sensor, but fails to teach it is executed after distance measurement. However, Yamazaki teaches that external light AF should be executed for low brightness therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to detect brightness level after distance measuring in non-irradiation state, in order to determine if distance measurement in an irradiation state needs to be executed due to low brightness. It would be beneficial to the quality of autofocus to flash an auxiliary light to compensate for the low brightness when such a state of low brightness is determined.

Regarding Claim 12, Yamazaki teaches the camera according to claim 11, wherein the CPU executes the third auto-focus operation, when the subject is judged to indicate the low brightness (*as addressed with Claim 9).*

Regarding Claim 13, Yamazaki teaches the camera according to claim 9, wherein the CPU executes the second auto-focus operation, and executes the first auto-focus operation, when the subject is judged to exist in a distance shorter than a predetermined distance. Fig. 10 shows a predetermined distance and a close range

side within a range of distance shorter than the cross point, or predetermined distance. Fig. 4 shows execution of the second auto focus and first autofocus, contrast AF, on the area judged to be within the close range.

Regarding Claim 14, Yamazaki teaches a camera including a focusing apparatus, comprising: a photographing lens; an image pickup device which picks up a subject image by using the photographing lens; a first auto-focus section which adjusts a focus of the photographing lens based on a contrast of a subject image obtained via the photographing lens; a second auto-focus section which adjusts the focus of the photographing lens based on a pair of subject images obtained via the pair of optical systems (*as addressed with Claim 9)*; a flash light irradiating section which irradiates a subject with a flash light (*Yamazaki teaches the concept of projecting light on an object, and therefore would require a flash)*; a judging section which judges whether or not an auto-focus operation by the first auto-focus section is appropriate, based on contrast of the subject image (*Fig. 4, S134 shows that contrast AF is performed and it is judged as to whether a focus position, or peak sufficient contrast as taught in paragraph 82, is found. If it is not appropriate, Yamazaki teaches that the distance measuring result is used to determine lens position).* Yamazaki also teaches the distance measurement in low brightness, which corresponds to low contrast, areas can use an external light AF method of distance measurement as taught in paragraph 4. However, Yamazaki does not teach that the apparatus then goes into the distance measurement auto focus section of step S112 because it already has the result from

distance measurement auto focus. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to execute distance measuring auto focus when contrast autofocus is inappropriate because the system provides two different auto focus methods and they should compensate and provide for backup for each other to maintain an optimal system with two methods.

Regarding Claim 21, Yamazaki teaches a camera including a focusing apparatus, comprising: a photographing lens; an image pickup device which acquires a subject image signal via the photographing lens; a first auto-focus section which performs focusing of the photographing lens based on a contrast of the subject image signal acquired by the image pickup device (*as addressed with Claim 9)*; a distance-measuring device which uses a pair of subject image signals acquired via the pair of optical systems to perform distance measurement (*paragraph 4 teaches external light AF to measure distance by projecting light on an object with a phototransmitter and receives the light with a receptor, these devices are shown in Fig. 3 reference number 14, the distance measurement sensors)*; a second auto-focus section which performs the focusing of the photographing lens in accordance with a distance measurement result of the distance-measuring device (*distance measurement is commonly known for the purpose of autofocus as in paragraph 4)*; a flash light irradiating section which irradiates a subject with a flash light (*as addressed with Claim 14).* Fig. 10 shows that distance measurement is judged for an appropriate range, but Yamazaki fails to teach that when the signals acquired are not appropriate for distance measurement, then

light irradiates the subject with the flash light and performs the focusing of the photographing lens preferentially by the second auto-focus section. Since Yamazaki teaches that in low brightness, external light AF distance measurement should be used, then it would have been obvious to one or ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to perform external light AF when distance measurement without flash is not sufficient, which corresponds to low brightness level. It would be beneficial to the quality of autofocus to flash an auxiliary light to compensate for the low brightness when such a state of low brightness is determined.

Regarding Claim 22, Yamazaki teaches a camera including a focusing apparatus, comprising: a flash section which irradiates a subject with an auxiliary light; a photographing lens; a contrast type focusing section which acquires a subject image signal at the time of displacement of the photographing lens by a micro amount via the photographing lens and which determines a focusing position in accordance with a contrast change of the acquired subject image signal to control the focusing of the photographing lens (*as addressed with Claim 9)*; an optical system which is different from the photographing lens (*Fig. 3 reference number 14)*; a distance-measuring section which acquires a plurality of subject image signals via the optical system different from the photographing lens to measure a distance of the subject based on the acquired plurality of subject image signals (*paragraph 77)*; and a control section which determines whether to continue focusing control by the contrast type focusing

section or to change to the focusing control to determine the focusing position based on the distance measured by the distance-measuring section, based on the plurality of subject image signals acquired by the distance-measuring section (*Fig. 4, S136 shows that the lens is moved to a focus position either by contrast AF if it is sufficient, otherwise with distance measurement AF as a backup).* Yamazaki fails to teach that this is done when the subject is irradiated with the auxiliary light by the flash section. However, Yamazaki does teach that the auxiliary light AF should be used in low brightness and therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify that taught by Yamazaki to be done in auxiliary light in order to compensate for low brightness.

Regarding Claim 23, Yamazaki teaches the camera according to claim 22, wherein the control section controls the irradiation of the subject with the auxiliary light by the flash section and controls the focusing by the contrast type focusing section (*Fig. 3 reference number 40 performs control)*, when the distance of the subject measured by the distance-measuring section is shorter than a predetermined value at the time of the irradiation with the auxiliary light by the flash section, and the contrast of the plurality of subject image signals acquired by the distance-measuring section is larger than a predetermined value. Yamazaki teaches in low brightness, external light AF is performed (*paragraph 4)*, so this is detected by failure of the other autofocus methods.

Regarding Claim 24, Yamazaki teaches a camera including a focusing apparatus, comprising: a photographing lens; a driving mechanism which drives the photographing lens along an optical axis direction; an image pickup device which receives a subject light flux incident via the photographing lens to output the subject image signal; an image processing circuit which processes the subject image signal outputted from the image pickup device; a distance-measuring device which includes a pair of optical systems and a pair of sensors for distance measurement to detect a pair of subject images incident via the pair of optical systems and which outputs information associated with a subject distance based on the subject images detected by the sensors for distance measurement; and a CPU which detects the subject image signal processed by the image processing circuit or a brightness distribution of the pair of subject images detected by the sensors for distance measurement to select either one of the first and second auto-focus operations based on the detection result and which selectively executes a first auto-focus operation of detecting a contrast based on the subject image signal processed by the image processing circuit to adjust a focus of the photographing lens, and a second auto-focus operation of performing a distance-measuring operation by the distance-measuring device to adjust the focus of the photographing lens (*as addressed with Claims 9 and 14).* Yamazaki teaches in Fig. 4 the lens focus position is either from the contrast AF or distance measuring AF in S136, but fails to teach this choice is in accordance with a result of the distance-measuring operation. It teaches this choice is in accordance with sufficiency of the contrast AF method instead. It would have been obvious to one of ordinary skill in the

art at the time of the invention to base the choice of autofocus method the opposite way taught by Yamazaki which is to base it on the sufficiency of the distance measuring operation, and select contrast AF method if insufficient because the system provides two different auto focus methods and they should compensate and provide for backup for each other to maintain an optimal system with two methods.

Regarding Claim 25, Yamazaki teaches a camera including a focusing apparatus, comprising: a photographing lens including a diaphragm mechanism (*Fig. 3 reference number 33)*; an image pickup section which includes an image pickup device to photograph a subject image incident via the photographing lens to obtain a subject image signal (*as addressed in Claim 9)*; a setting section which sets conditions of an image pickup operation by the image pickup section (*it is inherent that conditions of image pickup operation are settable by the image pickup section, such as aperture being changed either manually or internally)*; a first auto-focus section which focuses the photographing lens from a contrast of the subject image signal obtained by the image pickup section; a distance-measuring section which includes a pair of sensors for distance measurement to acquire a pair of subject image signals via a pair of optical systems for distance measurement and which performs a distance-measuring operation to calculate a subject distance from the pair of subject image signals; a second auto-focus section which focuses the photographing lens based on the distance measurement result of the distance-measuring section (*as addressed with Claim 9)*; It is already addressed with previous claims the device that selects a first

and second auto focus with relation to detected brightness. However, Yamazaki fails to teach that settings are selected when the second autofocus is selected.

Since changing settings such as aperture, shutter speed will affect the exposure and compensate for brightness, it would have been obvious to one of ordinary skill in the art at the time of the invention to allow the apparatus to change the settings relating to light amount in order to ensure sufficient brightness which optimizes the process of distance measurement in turn to ensure optimal autofocus.

Regarding Claims 26 and 27, Yamazaki teaches the camera according to claim 25, wherein the conditions of the image pickup operation set by the setting section include at least aperture value information of the diaphragm mechanism, shutter speed information of a shutter to expose an image pickup plane of the image pickup device, and sensitivity information of the image pickup device. It is inherent that conditions that are settable and changeable on an image pickup operation include aperture value and shutter speed and sensitivity information.

Regarding Claim 28, Yamazaki teaches the camera according to claim 27, but fails to teach specifically the limitations of Claim 28. However, Yamazaki teaches a diaphragm whose properties are inherently changeable, and sensitivity of the image pickup device is changeable. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Yamazaki to change the settings in order to accommodate for different lighting conditions.

Regarding Claim 29, Yamazaki teaches a camera including a focusing apparatus, comprising: a photographing lens; a first auto-focus section which includes an image pickup device to obtain a contrast of a subject image signal obtained via the photographing lens and which adjusts a focus of the photographing lens based on the contrast of the subject image signal obtained by the image pickup device; a second auto-focus section which includes a distance-measuring device to perform a distance-measuring operation based on a pair of subject image signals obtained via the pair of optical systems and which adjusts the focus of the photographing lens in accordance with the output of the distance-measuring device; a detecting section which detects the subject image signal obtained by the image pickup device or a brightness distribution of the pair of subject image signals obtained by the distance-measuring device (*as addressed with Claim 25).* Yamazaki teaches external light AF to perform distance measurement should be selected when there is low brightness (paragraph 4) and changing the aperture values or other values affecting brightness is addressed with Claim 25.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yamasaki (US 2005/0195277) teaches an autofocus with triangular distance measurement and contrast type focus detection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy Hsu whose telephone number is 571-270-3012. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amy Hsu
Examiner
Art Unit 2622

ARH 10/15/2007

LIN YE
SUPERVISORY PATENT EXAMINER